UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
SERROU, ABDELALI

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>24 December 2008</u>.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>19,20,22-25,27 and 28</u> is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>19,20,22-25,27 and 28</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>22 February 2002</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a) ☐ All b) ☐ Some * c) ☐ None of:

  1. ☐ Certified copies of the priority documents have been received.

  2. ☐ Certified copies of the priority documents have been received in Application No. _____.

  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   In response to the final office action mailed on 11/12/08, applicant filed an amendment

on 12/24/08, amending independent claims 19 and 24. Claims 1-18, 21, 26, 29-38 were

previously canceled. The pending claims are 19-20, 22-25, and 27-28.

Response to Arguments

2.   Applicant's arguments filed 12/24/08 have been fully considered but they are not

persuasive.

As per claims 19 and 24, applicant admits that McAllister teaches a method for

determining which field is best for disambiguating database search result. Nevertheless,

applicant argues that McAllister does not teach selecting one disambiguation data field based on

a predetermined selection criterion when more than one disambiguation data field is identified in

the identifying step; and presenting, through a speech interface, data items corresponding to said

selected disambiguation data field for each said retrieved database entry, because McAllister's

method is for determining which field is best for disambiguating via additional speech output,

rather than speech input. Also, applicant argues that McAllister presents both data items in the

data field with duplicate data items (the name) and data items in the disambiguation data field

(the location), as opposed to claims 19 and 24, wherein only data items corresponding to the

selected disambiguation data field are presented. The examiner notes that the features argued are

not recited in the rejected claim(s). Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. See *In re Van

Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, one of the objects of the

invention of McAllister is to provide for a user-friendly interface to an automated directory

search function which intelligently prompts a user for further information to progressively

eliminate non-qualifying listings and refocus the search to identify one or more desired listing(s)

(see summary of the invention). Therefore, both additional input and output is a required

necessity.

  Applicant argues that McAllister teaches eliminating unlikely pronunciation and not

unpronounceable data, supporting his argument with the "KOCH" example, and stating that the

concept of excluding any data field having at least one data item that is unpronounceable is not

known to those skilled in the art. The examiner notes that the "KOCH" example is just an

example, and should not be used against the teachings of McAllister. McAllister teaches

pronunciation rules for generating speech (col. 5, lines 14-24, and col. 7, lines 57-63).

Therefore, data items that do not fit the pronunciation rules will not be generated as speech and

pronounced. Therefore, McAllister teaches eliminating unpronounceable data item.

Furthermore, the examiner points out to the specification of the current application, page 6, lines

11-15, wherein applicant states,

  "The search results further can be processed to determine whether the data items within
the data fields accurately can be pronounced through a speech interface. Those skilled in the art
will recognize that this determination can be made using any of a variety of techniques such as
using a dictionary to lookup data items or analyzing the patterns of vowels and consonants of the
data items."

  The examiner is wondering which one of the recited above techniques is not well known.

As admitted by applicant above, using a dictionary to lookup data items or analyzing the patterns

of vowels and consonants of the data items to determine whether the data items within the data

fields accurately can be pronounced through a speech interface is well known.

Regarding the prior art, Gilai, applicant argues that the present invention does not

concern the length of an input string, but rather the length of a data item in a data field in the

search results. It is also noted that the present invention also does not concern probability.

Rather, the present invention concerns excluding any data field having at lease one data item that

exceeds a predetermined maximum length. It is further noted that the reason to exclude any data

field having at lease one data item that exceeds a predetermined maximum length is that the long

data items can be difficult for a user to remember when making a selection (see Specification,

page 1, line 22), not that the data items cannot be recognized or pronounced by a

recognition/synthesis engine. While the examiner is not sure of applicant argument, it is noted

that the limitation that necessitated the introduction of Gilai to the record is very broad and is

subject to more than one interpretation, at least one of which would render the claim

unpatentable over the prior art. The examiner should reject the claim over the prior art based on

the interpretation of the claim that renders the prior art applicable. Ex parte Ionescu, 222 USPQ

537 (Bd. Pat. App. & Inter. 1984). In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970).

Therefore, claims are given their broadest reasonable interpretation The Federal Circuit's *en banc*

decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) because

although the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir.

1993).

As per the rest of the claims, and combinations of prior art reference, applicant has no

further arguments beside the ones mentioned above. Therefore, all the combinations of prior art

reference mentioned above are valid, and all other claims are rejected for the same reasons as set

above.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 19-20, 22-25, and 27-28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over McAlister et al., Patent No. 6,421,672 in view of Gilai et al., U.S. Patent No.

6,256,630.

As per claims 19 and 24, McAlister et al. teach a method for disambiguating search

results (see abstract) comprising:

retrieving multiple database entries (multiple listings, col. 2, line 42-51) responsive to a

database search, wherein said retrieved database entries include a plurality of common data fields

(primary key and secondary data fields, col. 2, lines 53 and 60; and col. 5, line 6);

processing common data fields of said retrieved database entries according to

predetermined disambiguation criteria (col. 7, lines 46-63, and col. 8, lines 44-65, wherein

additional processing and database are provided to resolve the ambiguity of the listings,

according to predetermined disambiguation criteria, and distinguish it between other listings,

when the listings disambiguation that lead to an accurate pronunciation is not configured);

excluding data fields of said retrieved database entries having duplicate data items (col. 2, lines 52-65, wherein when duplicated data field, such as a name, is excluded and other data fields such as the addresses of the listings are examined);

excluding any data fields having at least one data item that is unpronounceable (col. 5, lines 14-24, and col. 7, lines 57-63, wherein pronunciation rules control speech generation and generates only data items that confirm with the pronunciation rules);

based upon said processing, identifying from among said plurality of common data fields at least one disambiguation data field that satisfies said predetermined disambiguation criteria (col. 3, lines 34-54, wherein the system uses hierarchical search pattern to identify distinguishing information, and determines that the locations, along with the names, of the identified listings is more suitable to identify the right candidate);

selecting one disambiguation data field based on a predetermined selection criterion when more than one disambiguation data field is identified in the identifying step (col. 3, lines 34-54, wherein one disambiguation field (location) is selected when there exist another disambiguation field (phone number) in order to distinguish between different callers); and

presenting, through a speech interface (speech signal) , data items corresponding to said selected disambiguation data field for each said retrieved database entry (see col. 3, lines 47-54), wherein said speech interface is used in conjunction with a system in which said database search is performed (see Fig. 1, field 34a and col. 7, lines 63-67), and wherein said speech interface provides users of said system with an interface for searching for information contained within a database in which said database search was conducted and with an interface for audibly receiving results of said database search (see col. 9, lines 37-67).

McAllister does not explicitly teach excluding data fields having data items that exceed a predetermined maximum length.

However, this feature is well known in the art as evidenced by Gilai et al. which disclose a database accessing system and method comprising the step of excluding data fields having data items that exceed a predetermined length (col. 12, lines 13-46, wherein the database accessing system of Gilai enters, onto a list, only strings with a predetermined length entered by the user, and obviously ignores the rest. Furthermore, it discards strings with lowest probability which corresponds to strings with higher length).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to use Gilai's feature and apply it to the disambiguation system of McAllister, in order to exclude data field that exceed a predetermined length. Gilai suggests that would improve the accuracy and efficiency of the retrieval process by providing the best selected candidate entries (Gilai, col. 16, pages 14-23).

As per claims 20 and 25, McAllister in view of Gilai teach all the limitations of claims 19, 24, 29, and 34, upon which claims 20, 25, 30, and 35 depend. Furthermore, McAllister teaches wherein data item pronounceability is determined using at least one of a determination technique based upon a failed dictionary lookup where the dictionary contains pronounceable data items and a determination technique that analyzes patterns of consonant-vowel combinations occurring within the data items (necessarily disclosed within McAllister's system, to synthesize speech, col. 4, line 61 – col. 5, line3).

As per claims 22 and 27, McAllister in view of Gilai disclose all the limitations of claims 19, 24, 29, and 34 upon which claims 22, 27, 32, and 37 depend. McAllister does not

explicitly teach wherein the maximum length is determined from an empirical analysis of a

relative ease with which users recall audibly presented speech items. Gilai in the same field of

endeavor teaches wherein the maximum length is determined from an empirical analysis of a

relative ease with which users recall audibly presented speech items (col. 12, lines 13-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to use the similarity method of Gilai (which meets the claimed limitation of "empirical

analysis of relative ease" to improve the accuracy and efficiency of the retrieval process by

providing the best selected candidate entries (Gilai, col. 16, pages 14-23).

 As per claim 23, McAllister in view of Gilai disclose all the limitations of claims 19 and

29, upon which claims 23 and 33 depend. McAllister does not explicitly teach selecting the

disambiguation data field having data items with a smallest average length. However, this feature

is well known in the art as evidenced by Gilai's which discloses a database accessing system and

method comprising the step of determining a data from said plurality of common data fields

having data item with a smallest average length, (see col. 12, lines 1-12). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made to use the

determining step of Gilai et al. in the processing step of McAllister et al., because this would

improve the accuracy and efficiency of the data retrieval process by providing the best selected

candidate entries (Gilai, col. 16, pages 14-23).

 As per claim 28, McAllister in view of Gilai teach all the limitations of claims 24, and

34, upon which claims 28 and 38 depend. Furthermore, McAllister teaches receiving a user

input specifying a data item associated with said selected disambiguation data field to

disambiguate said retrieved database entries (col. 3, lines 55-65).

Conclusion

Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Abdelali Serrou whose telephone number is 571-272-7638. The

examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David R. Hudspeth can be reached on 571-272-7843. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Abdelali Serrou/   /David R Hudspeth/
Examiner, Art Unit 2626   Supervisory Patent Examiner, Art Unit 2626